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MEDIUM-MU TRIODE — SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

Intended for use in equipment having series heater-string arrangement

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage	6.3	ac or dc volts
Current	0.6	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances (Approx.):

	Without External Shield	*With External Shield*°	
Triode Unit:			
Grid to plate	2.2	2.2	μμf
Grid to cathode and heater	2.5	2.7	μμf
Plate to cathode and heater	0.4	1.9	μμf
Pentode Unit:			
Grid No.1 to plate	0.04	0.03	μμf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	10	10	μμf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	3.6	4.5	μμf
Triode grid to pentode plate	0.016	0.006	μμf
Pentode grid No.1 to triode plate	0.006	0.003	μμf
Pentode plate to triode plate	0.15	0.023	μμf

Characteristics, Class A_1 Amplifier:

	Triode Unit	*Pentode Unit*		
Plate-Supply Voltage	200	65	200	volts
Grid-No.2 Supply Voltage	–	150	150	volts
Grid-No.1 Voltage	-8	0	0	volts
Cathode Resistor	–	–	180	ohms
Amplification Factor	18	–	–	
Plate Resistance (Approx.)	6700	–	400000	ohms

° With external shield JETEC No.315 connected to cathode of unit under test.

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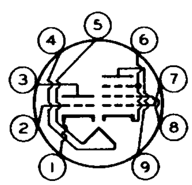
MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

	Triode Unit	*Pentode Unit*		
Transconductance	2700	–	9000	μmhos
Plate Current.	8	42*	13	ma
Grid-No.2 Current.	–	12.5*	3.5	ma
Grid-No.1 Voltage (Approx.) for plate current of 10 μa	–16	–	–10	volts

Mechanical:

Mounting Position. . . . . .Any
Maximum Overall Length . . . . 2-5/8"
Maximum Seated Length. . . . . 2-3/8"
Length, Base Seat to Bulb-Top (Excluding tip). . . 2" ± 3/32"
Maximum Diameter . . . . 7/8"
Dimensional Outline. . . . . *.See General Section*
Bulb T6-1/2
Base . . . . Small-Button Noval 9-Pin (JETEC No.E9-1)
Basing Designation for BOTTOM VIEW 9DX

Pin 1 – Triode Cathode
Pin 2 – Triode Grid
Pin 3 – Triode Plate
Pin 4 – Heater
Pin 5 – Heater



Pin 6 – Pentode Cathode, Grid No.3, Internal Shield
Pin 7 – Pentode Grid No.1
Pin 8 – Pentode Grid No.2
Pin 9 – Pentode Plate

AMPLIFIER - Class A_1

Maximum Ratings, *Design-Center Values:*

	Triode Unit	*Pentode Unit*	
PLATE VOLTAGE	300 max.	300 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	–	300 max.	volts
GRID-No.2 VOLTAGE	–	*See Grid-No.2 Input Rating Chart at front of Receiving Tube Section*	
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Negative bias value . . .	–	50 max.	volts
Positive bias value . . .	–	0 max.	volts
PLATE DISSIPATION	2 max.	3.25 max.	watts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 150 volts	–	1 max.	watt

* These values can be measured by a method involving a recurrent wave form such that the grid-No.2 input will be kept within ratings in order to prevent damage to the tube.

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MEDIUM-MU TRIODE — SHARP-CUTOFF PENTODE

	Triode Unit		Pentode Unit		
For grid-No.2 voltages between 150 and 300 volts	–		See Grid-No.2 Input Rating Chart at front of Receiving Tube Section		
PEAK HEATER-CATHODE VOLTAGE:					
Heater negative with respect to cathode	200	max.	200	max.	volts
Heater positive with respect to cathode	200▲	max.	200▲	max.	volts

Maximum Circuit Values:

	Triode Unit		Pentode Unit		
Grid-No.1-Circuit Resistance:					
For fixed-bias operation	0.5	max.	0.25	max.	megohm
For cathode-bias operation	1.0	max.	1.0	max.	megohm

▲ The dc component must not exceed 100 volts.

OPERATING CONSIDERATIONS

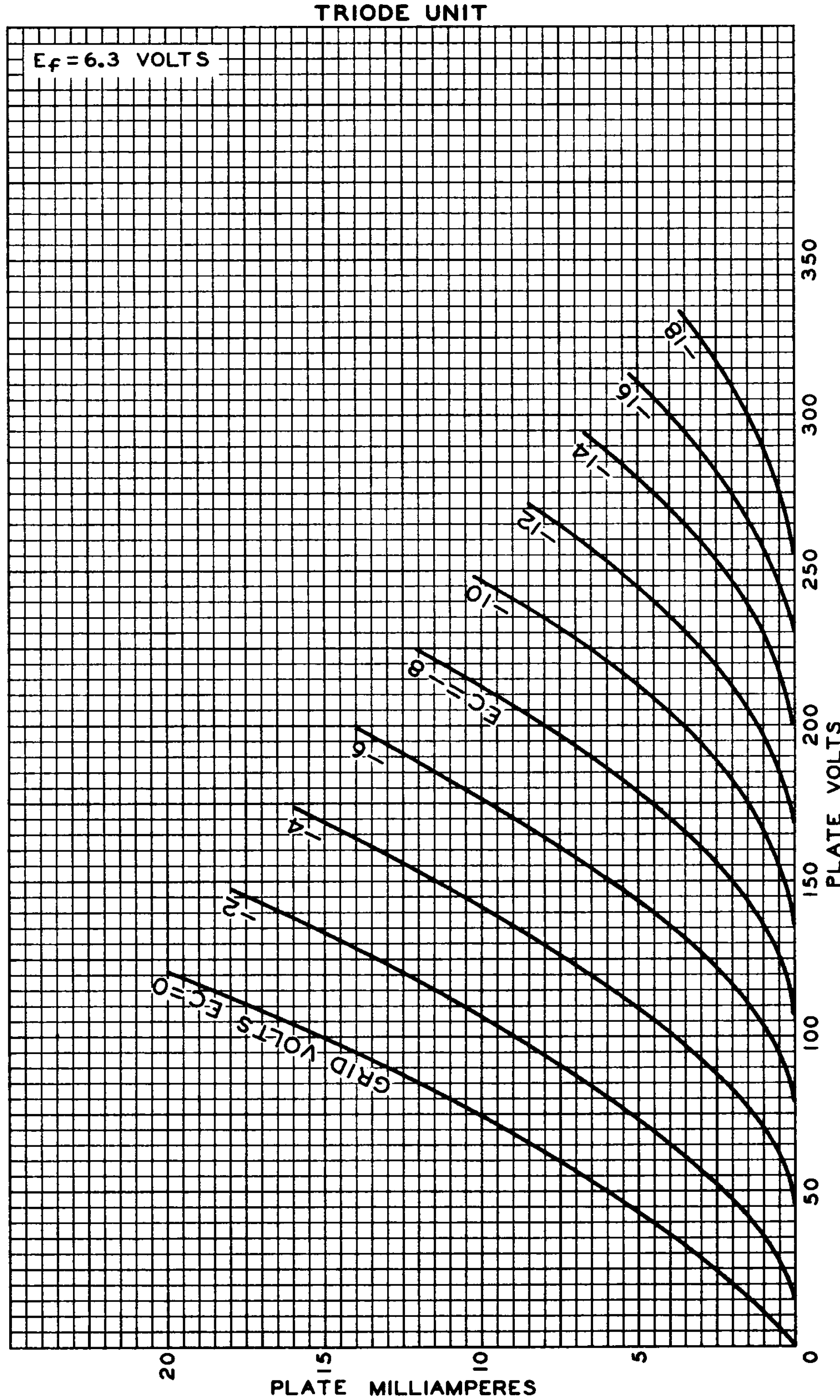
Because the internal shield is connected to the cathode and grid No.3, the impedance in the cathode circuit should be kept as low as possible to minimize cross-coupling effects.

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AVERAGE PLATE CHARACTERISTICS

TRIODE UNIT



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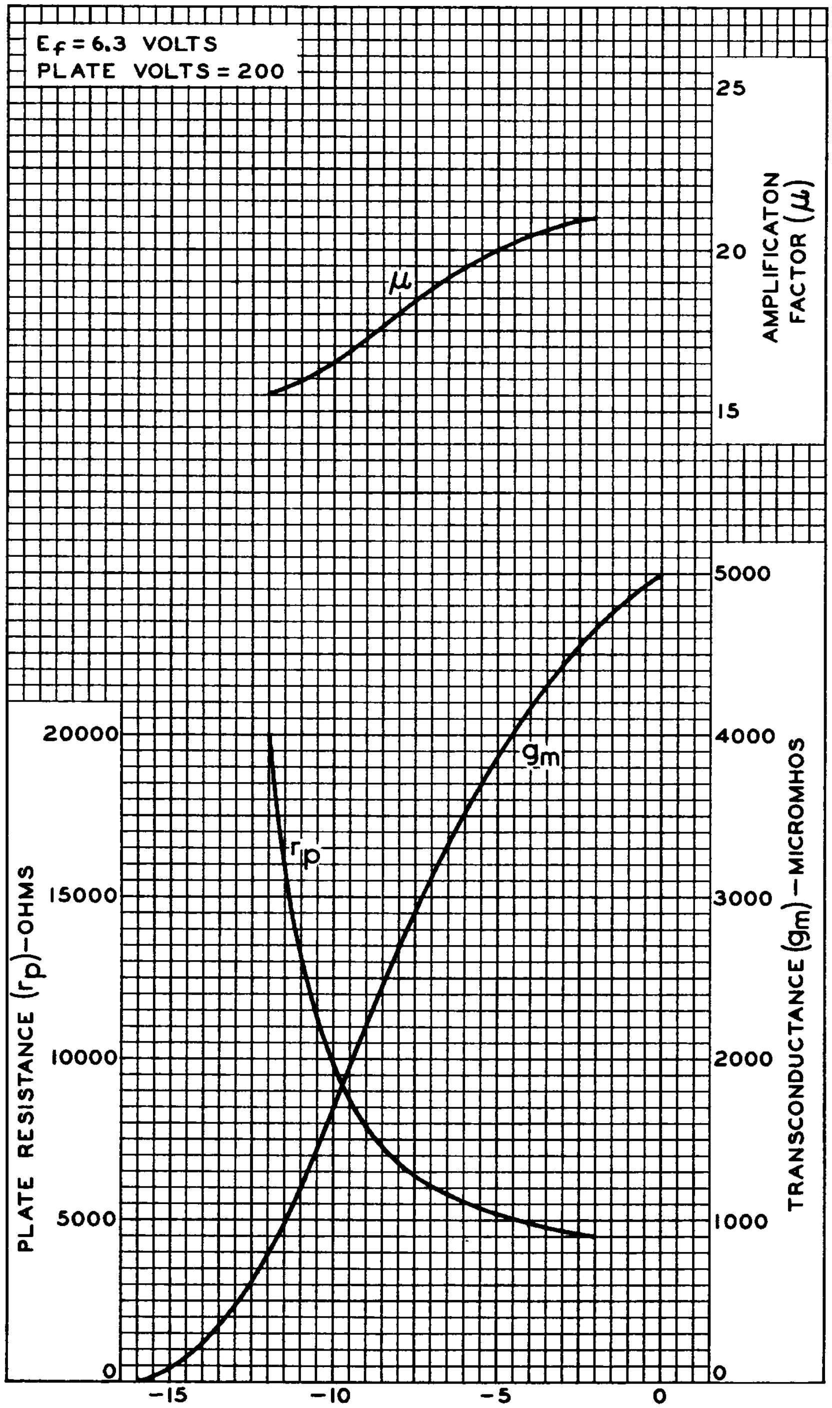
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AVERAGE CHARACTERISTICS

TRIODE UNIT



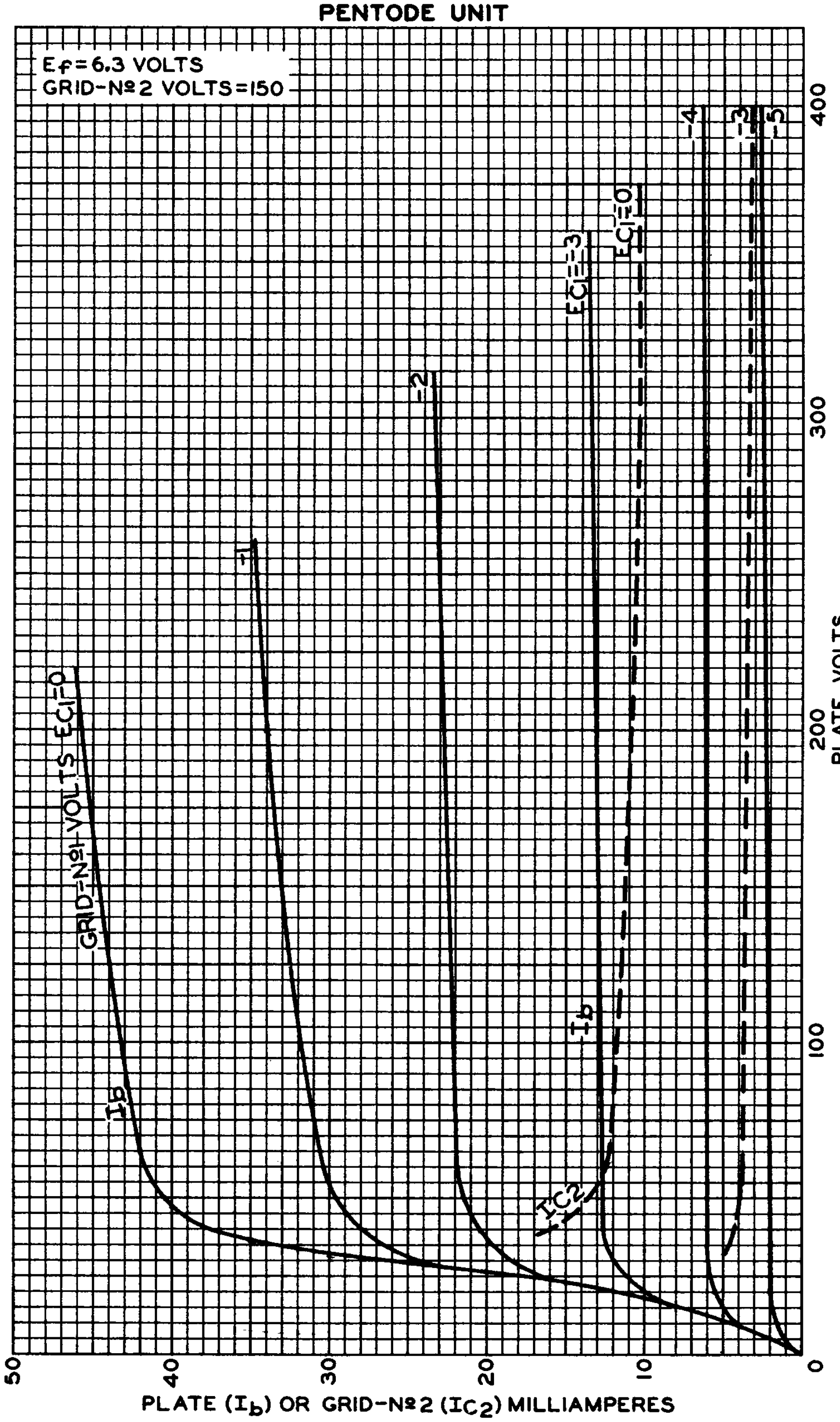
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AVERAGE CHARACTERISTICS

PENTODE UNIT



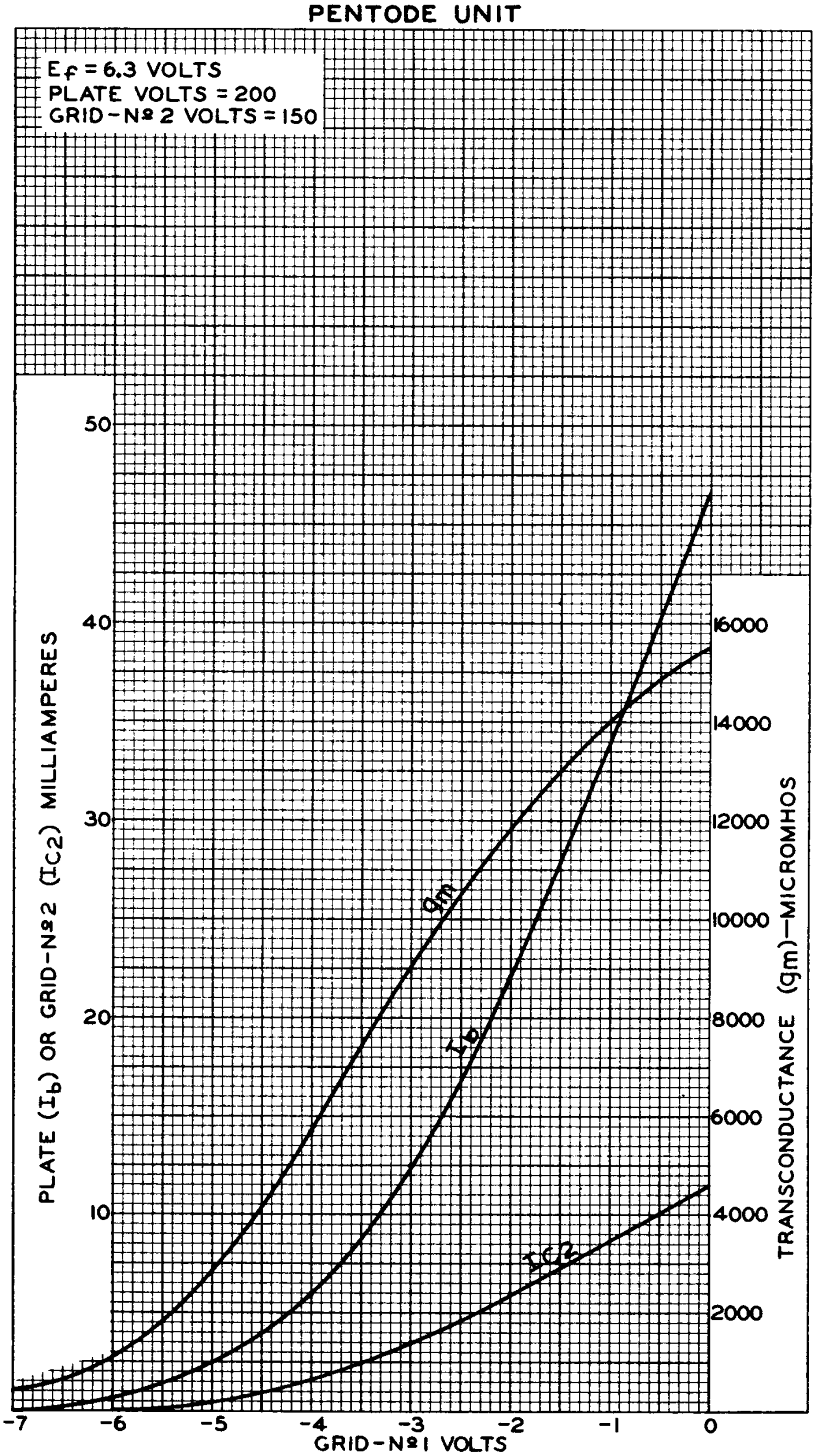
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AVERAGE CHARACTERISTICS

PENTODE UNIT



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